

Parent satisfaction with paediatric day-surgery: a questionnaire-based study

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Abstract

Potential advantages of paediatric day-surgery are cost saving, improved utilization of staff and hospital facilities, and reduction of stress for the paediatric patient and their family. A successful programme requires careful case selection, full operating and anaesthetic facilities and good follow-up. Current practice is reviewed with regard to initial assessment, preparation for surgery and overall management during the day admission. To provide information on how patients and their parents experience essential aspects of daycare paediatric surgery, a questionnaire-based study on parental satisfaction of paediatric day-surgery was performed. Most children were back to normal, within a few days. Recovery from paediatric day-surgery was rapid and the overall level of parent satisfaction was high.

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1. Introduction

Hospital admission for children inevitably provokes feelings of anxiety for both parent and child. The development of paediatric day-surgery has in some respects eased many of these anxieties. Due to enormous advances in the field of paediatric anaesthesia, for example short-acting narcotics and subtle operation techniques, a great number of paediatric operations can be performed in ambulatory paediatric surgery centres. Patient selection, preoperative assessment, general anaesthesia, postoperative care including oral intake and analgesia, and postoperative follow-up are considered the most important issues in the day-care system. A team approach including paediatric surgeons, anaesthetists and paediatric nurses is considered indispensable for safe and satisfactory day-surgery treatment. Maximising parent satisfaction is of prime importance in today's competitive outpatient paediatric day-surgery market. To assess the parent satisfaction of treatment in a paediatric day-surgery programme and its benefits to the child and family we analysed 136 self-administered questionnaires to identify particular

postoperative symptoms: pain, nausea, vomiting, sore throat and normal outcome.

2. Method

One-hundred and thirty-six children (median age 5 years, range 4 months to 13 years) were scheduled for paediatric day-surgery. Selection criteria included general fitness for a paediatric surgical procedure not requiring hospitalisation and no associated congenital malformation or heart disease. In all of these 136 cases, the parents were asked to complete a self-administered questionnaire to assess satisfaction with their paediatric day-surgery experience, including details on their admission, care and postoperative course. The questionnaire responses were anonymous. The study included urological, plastic and emergency operations performed by the same two paediatric surgeons and the same anaesthetic team at an ambulatory Paediatric Day-Surgery Centre in Cologne (Germany) with a referral base of 1.5 million people. All children went home on the same day as operation.

3. The parental satisfaction questionnaire

Based on the Kaiser criterion, three possible factors were identified. We selected a three factor model, because

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it seemed clinically most meaningful. The subscales were interpreted as: (1) surgical staff and general treatment satisfaction; (2) nursing staff and general information satisfaction; and (3) anaesthetic staff satisfaction. Internal consistency of the subscales measured by the Chronbach's alpha coefficient were 0.82 (1), 0.88 (2) and 0.76 (3).

4. Results

From October through December 2001 a total of 136 parents completed the protocol. Sixty-one percent of the patients were male, 39% female. The age ranged between 4 months and 13 years (median 5 years). Just before surgery, all patients were examined thoroughly and detailed instructions for premedications were given to the family. Anaesthesia was performed using sevoflurane and laryngeal mask. All operations were performed by the same two paediatric surgeons and anaesthetic team. The commonest procedures (Table 1) performed were circumcision ($n = 98$), inguinal hernia repair ($n = 4$), orchidopexy ($n = 5$), umbilical hernia repair ($n = 4$), plastic surgery ($n = 10$), hypospadias repair ($n = 4$) and emergency paediatric surgery ($n = 7$). Laparoscopic operations were not performed. After surgery and recovery from anaesthesia, the children were observed in a holding area adjacent to the operating room until fully conscious and alert. The duration of stay after operation ranged between 50 min and 5 h. Before leaving the Paediatric Day-Surgery Centre, the parents were briefed about postoperative care at home like feeding, ambulation and the use of analgesics. A contact telephone number was also provided to the family for any difficulty or emergency. All patients were re-examined 24 h after surgery, for any problem at home and the parents were assessed for their attitude toward this modality. Questionnaires were filled out on the first postoperative day by the parents. Wound pain was present in 50.7% (especially in children after circumcision), sore throat in 21.3%, nausea in 19.9%, sleep disturbances in 11.7%, dysregulation of circulation in 7.3%, bleeding in 7.3% and postoperative fever in 3.6% of cases. Day-surgery was generally well accepted. The factor analysis revealed three factors of parental satisfaction. We found the subscales interpreted as: (1) surgical staff and general treatment sat-

isfaction (Chronbach's alpha coefficient: 0.82); (2) nursing staff and general information satisfaction (Chronbach's alpha coefficient: 0.88); and (3) anaesthetic staff satisfaction (Chronbach's alpha coefficient: 0.76). 90.4% ($n = 123$) of the parents could manage the postoperative period at home satisfactorily. 92.6% ($n = 126$) would recommend paediatric day-surgery to others and 94.2% ($n = 128$) would recommend the paediatric day-surgery unit that they used. The proportion requiring hospital readmission or reconsultation of a paediatrician in the 7 days postoperatively was 8.8%. 7.4% of all parents ($n = 10$) refused operation on their child in a Paediatric Day-Surgery Centre. In two cases a paradoxical reaction to the narcotics was found. In eight cases the parents could not manage the child sufficiently well at home.

5. Discussion

Paediatric day-surgery goes by many names-outpatient paediatric surgery, same-day paediatric surgery, short-stay paediatric surgery and 1-day paediatric surgery. Paediatric day-surgery is intended for children who are in reasonably good health and who have passed preoperative screening tests. Paediatric day-surgery offers many advantages: high quality care from the same staff, short stay, short recovery time (due to medical advancements in surgery and anaesthesia), less emotional stress (caused by separation from the child's support persons) and lower costs for health care insurance providers. The operation usually takes less than 2 h and recuperation can be provided where childrens are most comfortable-at home. For a child, it means the comfort of returning home after the immediate recovery period; for a family, the least disruption possible. World-wide, we are seeing ever-mounting interest and pressure to increase the percentage of procedures performed as paediatric day-surgery. Two indicators of value are quality and cost. One of the central indicators of quality in paediatric day-surgery is whether the patient indeed can go home. Outcome measurement in medical care has traditionally included various aspects of clinical and functional status. Parent satisfaction is a very important measurement in the assessment of paediatric health care quality (Table 2).

Table 1

Surgical procedures (1 October 2001 to 31 December 2001) at the Paediatric Day-Surgery Centre Cologne

Surgical procedures (October–December 2001)	Cases (n)
Circumcision	98 (72.1)
Orchidopexy	5 (3.7)
Umbilical hernia repair	4 (2.9)
Plastic surgery	10 (7.3)
Emergency operations	7 (5.1)
Hypospadias repair	4 (2.9)
Inguinal hernia repair	8 (5.9)

Values shown in the parentheses are in percent.

Table 2

Pre- and postoperative variables and their values

Pre- and postoperative variables	Results
Number of operated children	136 (100%)
Median age	5 years (range 4 months to 13 years)
Gender	Male 61%, female 39%
Anaesthesia	Sevoflurane, propofole, laryngeal mask
Parental refusal or reoperation in a Paediatric Day-Surgery Centre (%)	7.4
Postoperative hospital admission/reconsultation of paediatrician (%)	8.8

Overall level of parental satisfaction with paediatric day-surgery was high and a rapid recovery and successful outcome from paediatric day-surgery was found. The questionnaire identified three factors of parental satisfaction, surgical staff and general treatment satisfaction; nursing staff and general information satisfaction; and anaesthetic staff satisfaction. The results encourage involvement in the evaluation and improvement of treatment, and suggest that the questionnaire should be further developed to fit paediatric day-surgery populations.

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Further reading

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